

## § 89.113

Tier 2 engines and later models. This provision does not apply to engines using turbochargers, pumps, blowers, or superchargers for air induction.

(f) The following paragraphs define the requirements for low-emitting Blue Sky Series engines:

(1) *Voluntary standards.* Engines may be designated “Blue Sky Series” engines through the 2004 model year by meeting the voluntary standards listed in Table 3, which apply to all certification and in-use testing, as follows:

TABLE 3—VOLUNTARY EMISSION STANDARDS (G/ kW-HR)

Rated Brake Power (kW)	NMHC+NO <sub>x</sub>	PM
kW<8 .....	4.6	0.48
8≤kW<19 .....	4.5	0.48
19≤kW<37 .....	4.5	0.36
37≤kW<75 .....	4.7	0.24
75≤kW<130 .....	4.0	0.18
130≤kW≤560 .....	4.0	0.12
kW>560 .....	3.8	0.12

(2) *Additional standards.* Blue Sky Series engines are subject to all provisions that would otherwise apply under this part, except as specified in paragraph (f)(3) of this section.

(3) *Test procedures.* NO<sub>x</sub>, NMHC, and PM emissions are measured using the procedures set forth in 40 CFR part 86, subpart N, in lieu of the procedures set forth in subpart E of this part. CO emissions may be measured using the procedures set forth either in 40 CFR part 86, subpart N, or in Subpart E of this part. Manufacturers may use an alternate procedure to demonstrate the desired level of emission control if approved in advance by the Administrator. Engines meeting the requirements to qualify as Blue Sky Series engines must be capable of maintaining a comparable level of emission control when tested using the procedures set forth in paragraph (c) of this section and subpart E of this part. The numerical emission levels measured using the procedures from subpart E of this part may be up to 20 percent higher than those measured using the procedures from 40 CFR part 86, subpart N, and still be considered comparable.

[59 FR 31335, June 17, 1994. Redesignated and amended at 63 FR 56995, 57000, Oct. 23, 1998]

EFFECTIVE DATE NOTE: At 69 FR 39212, June 29, 2004, § 89.112 was amended by revising the

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introductory text of paragraph (f)(1) and adding paragraph (g), effective Aug. 30, 2004. For the convenience of the user, the added and revised text is set forth as follows:

### § 89.112 Oxides of nitrogen, carbon monoxide, hydrocarbon, and particulate matter exhaust emission standards.

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(f) \* \* \*

(1) *Voluntary standards.* Engines may be designated “Blue Sky Series” engines by meeting the voluntary standards listed in Table 3, which apply to all certification and in-use testing, as follows:

\* \* \* \* \*

(g) Manufacturers of engines at or above 37 kW and below 56 kW from model years 2008 through 2012 that are subject to the standards of this section under 40 CFR 1039.102 must take the following additional steps:

(1) State the applicable PM standard on the emission control information label.

(2) Add information to the emission-related installation instructions to clarify the equipment manufacturer's obligations under 40 CFR 1039.104(f).

### § 89.113 Smoke emission standard.

(a) Exhaust opacity from compression-ignition nonroad engines for which this subpart is applicable must not exceed:

(1) 20 percent during the acceleration mode;

(2) 15 percent during the lugging mode; and

(3) 50 percent during the peaks in either the acceleration or lugging modes.

(b) Opacity levels are to be measured and calculated as set forth in 40 CFR part 86, subpart I. Notwithstanding the provisions of 40 CFR part 86, subpart I, two-cylinder nonroad engines may be tested using an exhaust muffler that is representative of exhaust mufflers used with the engines in use.

(c) The following engines are exempt from the requirements of this section:

(1) Single-cylinder engines;

(2) Propulsion marine diesel engines; and

(3) Constant-speed engines.

[59 FR 31335, June 17, 1994. Redesignated and amended at 63 FR 56995, 57003, Oct. 23, 1998]